AMENDMENTS TO THE CLAIMS

1. (Original) A ferrocene compound represented by the following general formula (I): [Chemical Formula 1]

$$A$$
 V^{1}
 V^{2}
 V^{3}
 V^{n+1}
 V^{n+1

wherein "A" represents a divalent ferrocene-containing linker or ferrocene-1,1'-yl, R₂ represents a hydrogen atom or alkyl; "n" and "m" represent any natural numbers; and "V" and "X" represent the following general formula (II) or (II-1):

[Chemical Formula 2]

[Chemical Formula 3]

"W" represents the following general formula (III):

[Chemical Formula 4]

wherein "U" in the general formulae (II) and (III) represents a nitrogen atom, methine or hydroxymethine; and "Z" represents the following general formulae (IV) or (V):

[Chemical Formula 5]

[Chemical Formula 6]

and both ends of each of V^n and X^m in the general formula (I) form a (-CO-NH-) bond except that a bond on the side of the ferrocene-containing linker or ferrocene-1,1'-yl of V1 is (-CO-NR₂-).

2. (Original) The ferrocene compound according to Claim 1 wherein "n" and "m" are natural numbers in the range of 3-20.

3. (Original) The ferrocene compound according to Claim 1 or 2 wherein the number of "n" is smaller by one than that of "m."

4. (Currently Amended) The ferrocene compound according to any one of Claims 1 3
Claim 1 wherein the ferrocene-containing linker is represented by the following general formula (VI):

[Chemical Formula 7]

Fe
$$R_3$$
 R_3
 R_3
 R_3

wherein R₁ and R₃ represent a hydrogen atom or alkyl; "j" and "k" represent the same or different integer of from 0 to 5.

5. (Currently Amended) The ferrocene compound according to any one of Claims 1 -3

Claim 1 represented by the following general formula (VII):

[Chemical Formula 8]

$$Fe \xrightarrow{R_1 \\ N} O \xrightarrow{k}$$

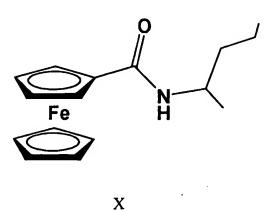
$$VII$$

wherein R₁ and R₃ represent a hydrogen atom or alkyl; "j" and "k" represent the same or different integer of from 0 to 5.

- 6. (Currently Amended) The ferrocene compound according to any one of Claims 1 to 5

 Claim 1 wherein "j" and "k" are 1.
- (Currently Amended) The ferrocene compound according to any one of Claims 1 to 6
 Claim 1 wherein R₁ and R₃ represent a hydrogen atom.
- 8. (Currently Amended) The ferrocene compound according to any one of Claims 1 to 3
 Claim 1 wherein the ferrocene-containing linker is represented by the following general formula (X):

[Chemical Formula 9]



9. (Currently Amended) The ferrocene compound according to any one of Claims 1 to 8

Claim 1 wherein R₁, R₂ and R₃ represent alkyl having one or several carbon atoms.

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10. (Original) The ferrocene compound represented by the following formula (VIII):[Chemical Formula 10]

11. (Original) The ferrocene compound represented by the following formula (IX):

[Chemical Formula 11]

12. (Original) The ferrocene compound represented by the following formula (1b):

[Chemical Formula 12]

13. (Original) The ferrocene compound represented by the following formula (1c):

[Chemical Formula 13]

14. (Original) The ferrocene compound represented by the following formula (2):

[Chemical Formula 14]

15. (Original) The ferrocene compound represented by the following formula (3):

[Chemical Formula 15]

- 16. (Currently Amended) A method for the production of the ferrocene compound according to any one of Claims 1 to 15 Claim 1, comprising a condensation step with the use of ferrocene methyl dicarboxylate, aminoferrocene methyl carboxylate or ferrocene carboxylic acid as a staring material.
- 17. (Currently Amended) A ligand consisting of the ferrocene compound according to any one of Claims 1 to 15 Claim 1 for sequence-specific detection of double-stranded nucleic acid molecules.

18. (Original) A method for the electrochemical detection of double-stranded nucleic acid molecules with the use of a compound that can sequence-specifically bind to the double-stranded nucleic acid molecules.

- 19. (Original) A method for electrochemical detection of double-stranded nucleic acid molecules according to Claim 18 with the use of the ligand according to Claim 17.
- 20. (Original) The method according to Claim 16 which uses the ligand according to Claim 17 wherein each pair of "V" and "X" located in the general formula (I) at a position corresponding to G/C and A/T (U) base pairs in subject double-stranded nucleic acid molecules is composed of imidazole derivative/pyrrole derivative and pyrrole derivative/pyrrole derivative, respectively.
- 21. (Currently Amended) A method for electrochemical detection according to any one of Claims 18 to 20 Claim 18 wherein the double-stranded nucleic acid molecules are formed on solid phase.
- 22. (Original) A method for electrochemical detection according to Claim 21, which uses DNA microarray.

23. (Currently Amended) A method for the detection of single nucleotide polymorphism (SNP) by the method for electrochemical detection according to any one of Claims 18 to 22 Claim 18.

- 24. (Original) An apparatus or device for the electrochemical detection with the use of the ligand for sequence-specific detection of double-stranded nucleic acid according to Claim17.
- 25. (Original) The apparatus or device for the electrochemical detection according to Claim 24, which is DNA microarray.